



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/763,040	01/21/2004	Brian A. Lipp	35056-512	6990
35437 7590 09/27/2007 MINTZ LEVIN COHN FERRIS GLOVSKY & POPEO 666 THIRD AVENUE NEW YORK, NY 10017			EXAMINER DIXON, ANNETTE FREDRICKA	
			ART UNIT 3771	PAPER NUMBER
			MAIL DATE 09/27/2007	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b>		<b>Applicant(s)</b>	
	10/763,040		LIPP, BRIAN A.	
	<b>Examiner</b>		<b>Art Unit</b>	
	Annette F. Dixon		3771	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 25 July 2007.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-3,5,8,11,14-22,25,28-31 and 34-48 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3,5,8,11,14-22,25,28-31 and 34-48 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

### **DETAILED ACTION**

1. This Office Action is in response to the amendment filed on July 25, 2007.

Examiner acknowledges claims 1-3, 5, 8, 11, 14-22, 25, 28-31, and 34-48 are pending in this application.

### ***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-3, 5, 8, 11, 14-22, 25, 28-31, 34, and 46-48 are rejected under 35 U.S.C. 102(b) as being anticipated by Stasz (US Patent 5311875)

As to Claims 1, 19 and 34, Stasz discloses a sensor comprising a flexible substrate (12), a flexible transducer (10), first and second electrical contacts (22 and 24), protective covering (14 and 16), at least one flexible lead (32).

As to Claims 2 and 20, Stasz discloses a protective covering (14 and 16) that substantially covers the flexible transducer (10).

As to Claims 3 and 21, Stasz discloses a protective covering (14 and 16) that substantially covers the flexible transducer (10) and the first and second contacts (22 and 24).

As to Claims 5 and 22, Stasz discloses the transducer to comprise resistive ink. (Column 1, Lines 54-62).

As to Claims 8 and 25, Stasz discloses the flexible substrate to have a first and second side (18 and 20), the first and second contacts are affixed to the first side of the substrate, the third contact (36) is affixed to the second side of the substrate and is in communication with the first electrical contact (22) and the fourth contact (34) is affixed to the second side of the flexible substrate and is in communication with the second electrical contact (24); wherein, the first and third contacts are in communication and the second and fourth contacts are in communication.

As to Claims 11 and 28, Stasz discloses an air inlet-covering portion. (Please see Figure 3).

As to Claims 14 and 30, Stasz discloses the contacts (22 and 24) are affixed to the mounting portion (28).

As to Claims 15-16, 31, and 48, Stasz discloses the electrical value of the transducer changes in proportion to the flexure of the substrate and that the value increases as the substrate is flexed. (Please see Column 3, Lines 9-19).

As to Claim 17, Stasz discloses the flexible substrate is made of polyimide. As described in applicant's specification polyimide is a non-conductive and flexible material. (Please see Column 3, Lines 9-19).

As to Claim 18, Stasz discloses the sensor is placed in the nares of the patient and thus are positioned in the stream of moving air.

As to Claim 29, Stasz discloses a mounting portion (28)

As to Claim 46 and 47, Stasz discloses the transducer (10) is affixed to the lead (32). (Please see Figures 1 and 2).

4. Claims 35-45 are rejected under 35 U.S.C. 102(b) as being anticipated by Ritson (US Patent 5522378).

As to Claim 35, 40, and 45, Ritson discloses a delivery device comprising an air inlet (23), and airway (601), a sensor (600), a valve (32), an aerosolation spray means (22), mouthpiece (20), electrical power supply (60 and 61), controller (50).

As to Claim 36, 37, 41 and 42, Ritson discloses the sensor is in communication with the controller (50) by a rivet (327) (Please see Column 21, Lines 5-15).

As to Claim 38 and 43, Ritson discloses the air shield (509) is positioned proximate to the sensor to direct airflow.

As to Claim 39 and 44, Ritson discloses the sensor (600) inherently cooperates with the air inlet (23) in the detection of flow rate.

### ***Response to Arguments***

5. Applicant's arguments filed July 25, 2007, have been fully considered but they are not persuasive. Applicant asserts prior art Stasz does not teach or fairly disclose: 1) a sensor for detecting the movement of air flow comprising at least one flexible lead connected to a substrate to a mounting portion of the sensor, 2) a substrate and flexible leave which are displaceable in the presence of a stream of moving gas or liquid causing flexure of the transducer and changing the electrical value of the transducer, and 3) a transducer that changes in electrical value in response to a stream of moving gas and liquid and also does not teach a substrate and flexible lead displaceable in

Art Unit: 3771

such a stream. Further, Applicant asserts prior art Ritson does not teach or fairly suggest a sensor for detecting the movement of air, wherein the sensor is positioned in the airway proximate the air inlet such that the sensor is effective to selectively close the air inlet. Examiner respectfully disagrees with Applicant's assertions.

Regarding the assertions of prior art Stasz, Stasz teaches a breath sensor (Abstract and Column 2, Lines 5-7) for detecting the movement of air comprising at least one flexible lead (tail segment, 32, containing conductive strips, 34 and 36) connecting the substrate (12) to a mounting portion of the sensor (adhesive layer, 28). In regards to the displaceable nature of the substrate and the flexible lead, the substrate and lead, as a structural unit, are displaceable in the presence of a stream of moving gas as the sensor device is able to be moved in the presence of the an air stream. In regards to the electrical changes within the transducer, Stasz teaches the electrical change changes in proportion to the temperature changes in which the film is exposed (Column 3, Lines 10-18). Further, Stasz teaches the temperature changes are due to the detected breathing system cycles. (Column 1, Lines 10-12).

Regarding the assertions of prior art Ritson, Ritson teaches a flow sensor (600) that is positioned in the airway proximate to the air inlet, wherein the flow sensor (600) is utilized to detect a proper delivery threshold in which the medicament may be delivered to the patient. In instances where the detected breath flow is insufficient the flow of medicament will be postponed, thus the flow of air and medicament to the patient is seized.

Art Unit: 3771

In light of the aforementioned reasons, the rejection of claims 1-3, 5, 8, 11, 14-22, 25, 28-31, and 34-48 has been maintained.

### ***Conclusion***

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Bowman et al. (5,161,541 and 5,558,099) and Wood (4,676,237).

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

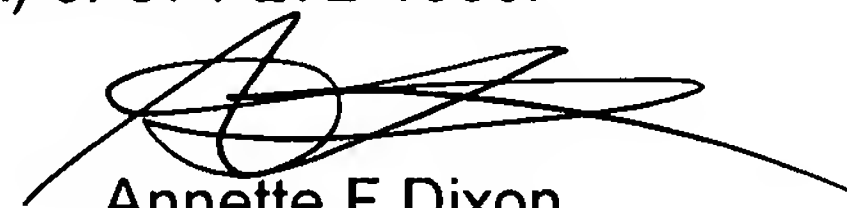
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Annette F. Dixon whose telephone number is (571) 272-3392. The examiner can normally be reached on Monday thru Friday.



Art Unit: 3771

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Justine Yu can be reached on (571) 272-4835. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

  
Annette F Dixon  
Examiner  
Art Unit 3771

  
JUSTINE R. YU  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 3700

9/25/07